

We claim:

1. A multiple feed antenna system comprising:

a first antenna structure of a first antenna type having a first radiation element and coupled to a first feeding port that is configured to be coupled to communications circuitry; and

5 a second antenna structure of a second antenna type coupled to a second feeding port that is configured to be coupled to communications circuitry,

wherein the first antenna structure and the second antenna structure are electrically connected through a portion of the first radiation element so that the second antenna structure includes the portion of the first radiation element to form a second radiation element.

10 2. The antenna system of claim 1, wherein the first antenna structure and the second antenna structure include a monopole antenna.

3. The antenna system of claim 1, wherein the first antenna structure and the second antenna structure include a dipole antenna.

15 4. The antenna system of claim 1, wherein the first antenna structure and the second antenna structure comprise a top loaded member.

5. The antenna system of claim 4, wherein the top loaded member is a portion of the first antenna structure and the second antenna structure.

6. The antenna system of claim 1, wherein the first antenna structure and the second antenna structure comprise a transmitting antenna and a receiving antenna.

7. The antenna system of claim 1, further comprising a pair of feeding ports.

8. The antenna system of claim 7, wherein the feeding ports are connected to a radio circuit.

9. The antenna system of claim 1, wherein the first antenna structure and the second antenna structure are mounted on a mounting surface, the mounting surface extending in three dimensions so as to orient the first antenna structure and the second antenna structure in the three dimensions.

10. The antenna system of claim 9, wherein the mounting surface is a dielectric substrate.

11. The antenna system of claim 1, wherein the antenna system is operable in a portable communication device.

12. The antenna system of claim 1, wherein the antenna system is operable in a wireless PDA.

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13. The antenna system of claim 1, wherein the antenna system is operable in a wireless paging device.

14. The antenna system of claim 1, wherein the antenna system is operable in a wireless two-way paging device.

15. A multiple feed antenna system, comprising:

a monopole antenna having a first radiation element and coupled to a first feeding port that is configured to be coupled to communications circuitry; and

15 a dipole antenna coupled to a second feeding port that is configured to be coupled to communications circuitry,

wherein the monopole antenna and the dipole antenna are electrically connected through a portion of the first radiation element so as to form a second radiation element.

16. The antenna system of claim 15, wherein the monopole antenna and the dipole antenna comprise a top loaded member.

5 17. The antenna system of claim 16, wherein the top loaded member is a portion of the monopole antenna and the dipole antenna.

18. The antenna system of claim 15, wherein the monopole antenna and the dipole antenna comprise a transmitting antenna and a receiving antenna.

19. The antenna system of claim 15, wherein the first and second feeding ports are connected to a radio circuit.

20. The antenna system of claim 15, wherein the monopole antenna and the dipole antenna are  
15 mounted on a mounting surface, the mounting surface extending in three dimensions so as to orient the monopole antenna and the dipole antenna in the three dimensions.

21. The antenna system of claim 20, wherein the mounting surface is a dielectric substrate.

22. The antenna system of claim 15, wherein the antenna system is operable in a portable communication device.

5 23. The antenna system of claim 15, wherein the antenna system is operable in a wireless PDA.

24. The antenna system of claim 15, wherein the antenna system is operable in a wireless paging device.

10 25. The antenna system of claim 15, wherein the antenna system is operable in a wireless two-way paging device.